

WHAT IS CLAIMED IS:

1. An image formation apparatus which performs image formation by raster scanning, comprising:

5 masking means for masking an image signal on the periphery of a screen in a main scanning direction and a sub scanning direction;

input means for inputting the image signal;

judgment means for judging an input mode of the image signal input by said input means; and

10 control means for changing an image masking range of said masking means, in accordance with a judged result of said judgment means.

2. An apparatus according to Claim 1, wherein
15 said judgment means judges an image input mode designation signal.

3. An apparatus according to Claim 1, wherein
in a printer mode that the image signal is input
20 from a host computer apparatus, said control means causes said masking means to give to a gate circuit an image masking signal by which an image can be formed up to the edge of a sheet, so as to expand the image up to the marginal edge of the sheet, and
25 in a mode that the image signal is input from an image reader, said control means causes said masking means to give to the gate circuit an image masking

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signal by which a margin can be provided at the edge of the sheet so as to limit an image area.

4. An apparatus according to Claim 3, wherein,
5 only when an image masking area reduction command is input, said control means causes said masking means to give to the gate circuit the image masking signal by which the image can be formed up to the edge of the sheet so as to expand the image up to the marginal edge
10 of the sheet.

5. An image formation apparatus which performs image formation by raster scanning, comprising:
masking means for masking an image signal on the
15 periphery of a screen in a main scanning direction and a sub scanning direction;
input means for inputting the image signal;
judgment means for judging an input mode of the image signal input by said input means; and
20 control means for inhibiting, in a mode that the image signal is input from an image reader, a change of an image masking range by said masking means, in accordance with a judged result of said judgment means.

25 6. An apparatus according to Claim 5, wherein, as said input means, said apparatus has image signal input means for inputting the image signal obtained by

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reading an image from said image reader, and image signal generation means for generating an image signal on the basis of information received from a host computer apparatus.

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7. An apparatus according to Claim 5, wherein said image formation apparatus is a laser beam printer which performs scanning with multibeams, or an electronic equipment which has a laser beam printer mechanism.

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8. An apparatus according to Claim 5, wherein said image formation apparatus is a light emission diode array printer, or an electronic equipment which has a light emission diode array printer mechanism.

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9. An image masking control method for an image formation apparatus which performs image formation by raster scanning, said method comprising:

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a masking step of masking an image signal on the periphery of a screen in a main scanning direction and a sub scanning direction;

an input step of inputting the image signal;

a judgment step of judging an input mode of the

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image signal input in said input step; and

a control step of changing an image masking range in said masking step, in accordance with a judged

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result in said judgment step.

10. A method according to Claim 9, wherein said
judgment step judges an image input mode designation
5 signal.

11. A method according to Claim 9, wherein
in a printer mode that the image signal is input
from a host computer apparatus, said control step
10 causes said masking step to give to a gate circuit an
image masking signal by which an image can be formed up
to the edge of a sheet, so as to expand the image up to
the marginal edge of the sheet, and
in a mode that the image signal is input from an
15 image reader, said control step causes said masking
step to give to the gate circuit an image masking
signal by which a margin can be provided at the edge of
the sheet so as to limit an image area.

20 12. A method according to Claim 11, wherein, only
when an image masking area reduction command is input,
said control step causes said masking step to give to
the gate circuit the image masking signal by which the
image can be formed up to the edge of the sheet so as
25 to expand the image up to the marginal edge of the
sheet.

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13. An image masking control method for an image formation apparatus which performs image formation by raster scanning, said method comprising:

5 a masking step of masking an image signal on the periphery of a screen in a main scanning direction and a sub scanning direction;

an input step of inputting the image signal;

10 a judgment step of judging an input mode of the image signal input in said input step; and

10 a control step of inhibiting, in a mode that the image signal is input from an image reader, a change of an image masking range in said masking step, in accordance with a judged result in said judgment step.

15 14. A method according to Claim 13, wherein, as said input step, said method includes an image signal input step of inputting the image signal obtained by reading an image from the image reader, and an image signal generation step of generating an image signal on 20 the basis of information received from a host computer apparatus.

15. A recording medium which has recorded an image masking control program for performing masking control of a computer to an image formation apparatus performing image formation by raster scanning, said image masking control program causing the computer:

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to input an image signal;
to judge an input mode of the input image signal;
to change an image masking range in accordance
with a judged result; and
5 to mask the image signal on the periphery of a
screen in a main scanning direction and a sub scanning
direction within the image masking range.

16. A medium according to Claim 15, wherein said
10 control program causes the computer to judge an image
input mode designation signal in case of judging the
input mode.

17. A medium according to Claim 15, wherein said
15 control program causes the computer
to give, in a printer mode that the image signal
is input from a host computer apparatus, to a gate
circuit an image masking signal by which an image can
be formed up to the edge of a sheet, so as to expand
20 the image up to the marginal edge of the sheet, and
to give, in a mode that the image signal is input
from an image reader, to the gate circuit an image
masking signal by which a margin can be provided at the
edge of the sheet so as to limit an image area.

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18. A medium according to Claim 17, wherein, only
when an image masking area reduction command is input,

5 said control program causes the computer to give to the gate circuit the image masking signal by which the image can be formed up to the edge of the sheet so as to expand the image up to the marginal edge of the sheet.

10 19. A recording medium which has recorded an image masking control program for performing masking control of a computer to an image formation apparatus performing image formation by raster scanning, said image masking control program causing the computer:

15 to input an image signal;
 to judge an input mode of the input image signal;
 to inhibit, in a mode that the image signal is input from an image reader, a change of an image masking range in accordance with a judged result; and
 to mask the image signal on the periphery of a screen in a main scanning direction and a sub scanning direction.

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20. A medium according to Claim 19, wherein said control program causes the computer to input the image signal from the image reader at it is when an image is read by the image reader, and to generate an image signal on the basis of information when the information is received from a host computer apparatus.

21. An image formation apparatus comprising:
plural input means for inputting image data;
recording means for recording an image on the
basis of an image signal input by any of said plural
5 input means;
masking means for masking the image to be recorded
by said recording means; and
control means for controlling a masking area of
said masking means, on the basis of by which of said
10 plural input means the image data was input.

22. An apparatus according to Claim 21, wherein
said plural input means include at least reading means
for reading an original image, and reception means for
15 receiving the image data from a host computer.

23. An apparatus according to Claim 22, further
comprising masking control means for expanding an image
area up to the vicinity of a sheet edge by reducing the
20 masking area of said masking means when the image is
recorded based on the image signal from said reception
means.

24. An apparatus according to Claim 23, further
25 comprising means for permitting said masking control
means to reduce the masking area when the image is
recorded based on the image signal input from said

reception means, and inhibiting said masking control means from reducing the masking area when the image is recorded based on the image data read by said reading means.

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25. An image formation apparatus comprising:
reading means for reading an original image;
reception means for receiving an image signal from
a host computer;

10 recording means for recording an image on the
basis of the image signal input by said reading means
or said reception means;

masking means for masking the image to be recorded
by said recording means; and

15 control means for controlling a masking area of
said masking means, on the basis of by which of said
reading means and said reception means the image signal
was input.

20 26. An apparatus according to Claim 25, further
comprising:

masking control means for controlling, in order to
expand an image area up to the vicinity of a sheet
edge, said masking means to reduce the masking area on
25 the basis of reception of a command to reduce the
masking area of said masking means; and

means for permitting the reduction of the masking

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area only when the image is recorded based on image data input by said reception means.

27. An apparatus according to Claim 25, wherein
5 said masking means comprises

masking signal generation means for
generating a masking signal, and
logical calculation means for performing
logical calculation to the image signal and the
10 masking signal generated by said masking signal
generation means.

28. An apparatus according to Claim 25, wherein
said recording means comprises

15 a semiconductor laser,
means for scanning a laser beam generated by
said semiconductor laser, and
detection means for detecting the laser beam
scanned by said scanning means.

20 29. An apparatus according to Claim 28, wherein
said masking means masks the laser beam in a main
scanning direction and a sub scanning directions of the
laser beam.

25 30. An apparatus according to Claim 28, wherein
said masking means controls masking in a main scanning

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direction on the basis of a detection signal of said detection means.

31. An image masking control method comprising:
5 an input step of inputting an image from any of plural input means for inputting image data;
 a masking step of masking the image to be recorded;
 a masking control step of controlling a masking area in said masking step, on the basis of by which of the plural input means the image data was input; and
 a recording step of recording the image on the basis of an image signal input from any of the plural input means in said input step.

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32. A method according to Claim 31, wherein the plural input means include at least a reading means for reading an original image, and a reception means for receiving the image data from a host computer.

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33. A method according to Claim 32, wherein, in said masking step, when the image is recorded based on the image signal from the reception means, an image area is expanded up to the vicinity of a sheet edge by 25 reducing the masking area in said masking step.

34. A method according to Claim 33, wherein it is

permitted to reduce the masking area when the image is recorded based on the image signal input from the reception means, and it is inhibited to reduce the masking area when the image is recorded based on the 5 image data read by the reading means.

35. An image masking control method comprising:
a reading step of reading an original image;
a reception step of receiving an image signal from
10 a host computer;
a masking step of masking the image to be recorded;
a control step of controlling a masking area in said masking step, on the basis of by which of plural
15 input means the image signal was input; and
a recording step of recording an image on the basis of the image signal input in said reading step or said reception step.

20 36. A method according to Claim 35, further comprising a masking control step of performing, in order to expand an image area up to the vicinity of a sheet edge, masking control to reduce the masking area on the basis of reception of a command to reduce the 25 masking area,
wherein it is permitted in said masking control step to reduce the masking area only when the image is

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recorded based on image data input in said reception step.

37. A method according to Claim 35, wherein said
5 masking step comprises

a masking signal generation step of
generating a masking signal, and
a logical calculation step of performing
logical calculation to the image signal and the
10 masking signal generated in said masking signal
generation step.

38. A method according to Claim 35, wherein said
recording step comprises

15 a step of scanning a laser beam generated by
a semiconductor laser, and
a detection step of detecting the laser beam
scanned in said scanning step.

20 39. A method according to Claim 38, wherein said
masking step masks the laser beam in a main scanning
direction and a sub scanning directions of the laser
beam.

25 40. A method according to Claim 38, wherein said
masking step controls masking in a main scanning
direction on the basis of a detection signal in said

detection step.

41. An image formation apparatus comprising:
scanning means for scanning plural lasers;
5 input means for inputting image data corresponding
to the plural lasers; and
generation means for generating a masking signal
to control light emission of each of the plural lasers,
wherein the plural masking signals are generated
10 by said generation means at mutually independent
timing.

42. An apparatus according to Claim 41, further
comprising detection means for detecting a laser beam
15 scanned, so as to generate a sync signal.

43. An apparatus according to Claim 42, wherein
said generation means generates each of the plural
masking signals on the basis of each of the plural
20 laser beams detected by said detection means.

44. An apparatus according to Claim 43, wherein
said generation means generates each of the plural
masking signals on the basis of the single laser beam
25 detected by said detection means.

45. An image masking control method comprising:

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a scanning step of scanning plural lasers;
an input step of inputting image data
corresponding to the plural lasers; and
a generation step of generating a masking signal
5 to control light emission of each of the plural lasers,
wherein the plural masking signals are generated
in said generation step at mutually independent timing.

46. A method according to Claim 45, further
10 comprising a detection step of detecting a laser beam
scanned, so as to generate a sync signal.

47. A method according to Claim 46, wherein said
generation step generates each of the plural masking
15 signals on the basis of each of the plural laser beams
detected in said detection step.

48. A method according to Claim 47, wherein said
generation step generates each of the plural masking
20 signals on the basis of the single laser beam detected
in said detection step.